REMARKS

A. Claimed Invention.

The instant application relates to a fragment of the product of the *Drosophilia short gastrulation gene (Sog)*. Such a fragment has an unexpectedly high level of Dpp inhibitory activity as compared to the intact, wild-type protein.

Claims 1-26 are pending in the instant application, with claims 1-2 being currently examined, and claims 3-26 having been withdrawn from consideration by the Examiner. Applicant is proceeding with examination of Claims 1 and 2 without prejudice to reinstatement of Claims 3-26 for examination.

B. Response to Rejection of Claims under 35 USC Section 101.

The Examiner has rejected pending Claims 1 and 2 on the asserted basis that Claim 1 is directed to a naturally occurring molecule. Applicants submit that this is inaccurate. Claim 1 is directed to a portion of the naturally occurring SuperSog coding sequence; however, the claimed portion of the wild-type coding sequence does not itself occur in nature, but must be manufactured, either synthetically or from the wild-type molecule. Hence, by definition, the claimed polynucleotide qualifies as statutory subject matter.

However, solely for the purpose of advancing prosecution, Claim 1 is amended herein to clarify the nature of the claimed polynucleotide, as being one that has been isolated, purified or produced synthetically. The amendment is not intended to limit the scope of the claim, and should not be taken to do so. Moreover, the amended claim is fully supported by the specification and does not introduce new matter or require a new search.

C. Response to Objection to Format of Sequence Listing Identifiers

Applicants respectfully disagree with the Examiner's assertion that the application is allegedly not fully in compliance with the sequence rules because the sequence identifier used in the specification and claims, preceded by "SEQ.ID.No." should be "SEQ ID NO:". Nothing in the regulations mandate that the sequence identifier be presented in any particular format and, in fact, the format used in applications and printed patents varies, most often favoring the punctuated form utilized by Applicants.

Nevertheless, in order to reduce issues and advance prosecution, Applicants respectfully submit herewith an amended disclosure, which references sequences by use of the sequence identifier, preceded by "SEQ ID NO:" as the Examiner requested. The amended disclosure contains the same subject matter of the invention and has no new matter.

D. Objection to Sequence Listing under 35 USC Section 132

The objection to the amendment filed 12/22/2000 (Paper No. 11) under 35 U.S.C. 132 as allegedly introducing new matter into the disclosure is respectfully traversed. Applicants respectfully submit that the sequence listing submitted in Paper No. 11 is fully supported by the original disclosure. One skilled in the art would have no difficulty identifying the sequences disclosed in the figures in the original application.

For example, Figure 6 contains all of the nucleotide and amino acid sequence data that is partially replicated in Figures 1-5. With respect to the claimed polynucleotide, based on the CR-1 region of the molecule, the nucleotide sequences and amino acid sequences encompassing CR-1 repeats are clearly readable in figures 1-6. Further, neither the drawings nor the sequence listing is required to enable one of ordinary skill in the art to practice the invention, because:

(1) the wild-type coding and amino acid sequences for *Sog* are known in the art (see, page 5, lines 6-11, with reference to Francois *et al.*); and

(2) the location of the SuperSog coding nucleotides and amino acid residues within, respectively, the *Sog* coding polynucleotide and coded polypeptide, are identified in the disclosure (see, e.g., Specification at page 6, line 16 through page 7, line 5).

Because there is no new matter introduced by submitting the sequence listing, Applicants respectfully request that the Examiner withdraw the objection.

E. Response to Drawing Objections

Formal drawings are submitted herewith, which comply with the draftsman's requirements. The formal drawings contain the same sequence data as presented in the originally filed figures, and add no new subject matter to the application.

CONCLUSION

In view of the foregoing remarks, Applicants respectfully submit that the pending claims are in condition for allowance. An early notice to that effect is earnestly solicited.

If the Examiner has any questions or comments concerning this Response, he is invited to contact the undersigned.

Respectfully submitted,

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Appendix A: Marked-up claim, indicating amendments

1. (Amended) [A] An isolated, purified or synthetic polynucleotide comprising the [nucleotides of SEQ.ID.No.1] nucleotide sequence of SEQ ID NO:1.